

CLAIMS

1. A device (1, 1') for treating soil by aeration, whereby the device may move transversally and be raised, the device comprises a frame (10, 10') and tools (11, 12, 11', 12') mobile with respect to the said frame, the tools are
 5 intended for sampling cores (8) in the soil, the cores are ejected from the tools in an ejection area, and stored (8') in the said device, characterised in that it comprises a receiving member integral with the frame and arranged between the soil and the ejection area, comprising through openings (24) for the tools, and exhibiting an upper face a lower face, whereas the said receiving member
 10 comprises a flexible carpet (2, 101) resting on the soil by at least one section of its lower face, whereby the falling cores are stored on the upper face of the carpet.

2. A device according to claim 1, characterised in that the receiving member is attached to a holding down clamp (14).

3. A device according to claim 1 or 2, characterised in that the lower face of the carpet comprises at least a type of protruding elements with respect to the general plane of the lower face.

4. A device according to claim 3, characterised in that the lower face of the carpet comprises at least a series of protruding chevrons (25), whereby the
 20 series of chevrons is aligned along an axis (25') parallel to the forward axis of the device and going through the axis of the corresponding core tool.

5. A device according to any of the previous claims, characterised in that the through opening (24) for the tool comprises at least one chamfered edge and preferably the rear rim (24') according to the forward direction of the
 25 device.

6. A device according to any of the previous claims, characterised in that a deflecting member (15) is fixed to the frame, whereas the said member is placed at the rear of the ejection area of the cores so that the ejected cores (8) are thrown back onto the receiving member.

7. A device according to any of the previous claims, characterised in that
 30 the receiving member comprises at least along both its free lateral edges rims (21, 21' 105) intended for maintaining the waste on the receiving member.

10016163-121601

SYB A1)

SYB A2)

8. A device according to claim 7, characterised in that at least a section of the rims intended for maintaining the waste on the receiving member comprises notches.

9. A device according to claim 7, characterised in that the rim comprises
5 an L-shaped band, whereas the side in contact with the carpet is substantially flat and the free side is corrugated.

SUB A3> 10. A device according to any of the previous claims, characterised in that the receiving member is modular, whereas the different modules (102, 103, 104, 108, 109) are connected together by dismountable joints (106, 107).

10 11. A device according to claim 10, characterised in that the receiving member is divided transversally with respect to the progress direction of the device in several sections, notably into at least three sections corresponding respectively to a front section (102), an intermediate section (103) and a rear section (104), whereby the intermediate section corresponds to the area of the
15 through openings (100) for the tools, whereby the three sections are hinged together by dismountable joints (106).

12. A device according to claim 11, characterised in that the lower face of the intermediate section (103) comprises bulges or spikes for example between 2 and 10 mm in height, preferably in the order of 4 mm.

SUB A4> 20 13. A device according to claim 11 or 12, characterised in that the lower face of the rear section (104) comprises chevrons.

14. A device according to any of the previous claims, characterised in that flexible carpet is made of an elastomer material, in particular a reinforced material, advantageously a reinforced polyurethane material.

25 15. A device according to any of the previous claims, characterised in that the receiving member (101) is divided to form longitudinal bands, extending from front to back, notably into two bands (108, 109) hinged together by at least one dismountable joint (107).

30 16. A device according to any of the claims 10 to 15, characterised in that the dismountable joint (106, 107) consists of an elongated member linking rings that are staggered along the hinged edges of the transversal sections

10018183 12180

SUB A4 >

and/or longitudinal bands, whereby the said elongated member is a flexible cable.

17. A device according to any of the previous claims, characterised in that it comprises a means enabling to unfold and/or to raise the carpet.

5 18. Method for implementing a device for treating soil by aeration consisting in sampling cores from the soil with tools, then in storing them in the device of any of the previous claims comprising a flexible carpet, characterised in that the cores ejected from the tools and falling onto the upper face of the flexible carpet, are stored (8') and in that the carpet rests on the soil by at least
10 a section of its lower face.

19. A method according to claim 18, characterised in that soil sanding is made previously to core boring.

20. A method according to claim 19, characterised in that sweeping or brushing takes place at the rear of the receiving member (2, 101).

15 21. A method for treating the soil by aeration in which cores are sampled from the soil by a core boring device and stored in the said device, characterised in that soil sanding is performed previously to core boring.

10018183 1001801